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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/680,608	10/04/2000	David C. Gelvin	08-880-US12	9581
20306 7590 07/07/2009 MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP 300 S. WACKER DRIVE 32ND FLOOR CHICAGO, IL 60606				
EXAMINER				
MIRZA, ADNAN M				
ART UNIT		PAPER NUMBER		
2445				
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07/07/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

09/680,608

**Applicant(s)**

GELVIN ET AL.

**Examiner**

ADNAN MIRZA

**Art Unit**

2445

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 65-88 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 65-88 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date: 01/22/2009; 03/19/2009
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 65-88 are rejected under 35 U.S.C. 102(e) as being anticipated by Beckert et al (U.S. 6,175,789).

3. As per claims 65,81 Beckert disclosed a method comprising: coupling an Original Equipment Manufacturer (OEM) bus, an Automotive Multimedia Interface Consortium (AMI-C) bus, and an external network via a gateway device, wherein the OEM bus interconnects OEM vehicle systems that perform vehicle functions, and the AMI-C bus interconnects AMI-C devices (col. 5, lines 16-37); authenticating devices connected to the AMI-C bus at the gateway device using an application processor; routing communications from at least one of (i) vehicle systems, (ii) AMI-C devices, and (iii) the external network to the application processor using a real time processor in the gateway device (col. 7, lines 21-31);. hosting vehicle applications associated with the OEM vehicle systems and the AMI-C devices on the application processor; and receiving an external communication at the gateway device and responsively altering a function of a vehicle system (col. 5, lines 1-15).

4. As per claim 66 Beckert disclosed wherein an unauthorized device attempts to access the AMI-C bus via a port node, and wherein authenticating devices connected to the AMI-C bus at the gateway device using an application processor comprises: consulting a security database to determine whether the device is authorized to communicate with the AMI-C bus (col. 7, lines 10-19); and if the device is not authorized, instructing the port node to prevent any traffic from the unauthorized device from being passed from the device to the AMI-C bus (col. 7, lines 21-31) .
5. As per claims 67,87 Beckert disclosed wherein the function of the vehicle system is selected from the group consisting of vehicle control functions, security functions, diagnostic functions, and network access functions (col. 7, lines 21-31).
6. As per claim 68 Beckert disclosed further comprising using the gateway node to provide a firewall between the AMI-C bus and the OEM bus (col. 3, lines 41-56).
7. As per claim 69 Beckert disclosed wherein the firewall prevents AMI-C devices on the AMI-C bus from disrupting essential functions of the vehicle (col. 4, lines 5-65).
8. As per claims 70,82,85 Beckert disclosed wherein the gateway device is coupled to a local development network, and wherein the gateway device acts as a bridge between the OEM bus, the AMI-C bus, the external network, and a local development network (col. 5, lines 15-27).

9. As per claim 71,<sup>83</sup> Beckert disclosed wherein, in bridging the OEM bus, the AMI-C bus, the external network, and the local development network, the gateway device provides a function selected from the group consisting of protocol translating, security, and privacy functions (col. 5, lines 15-27).

10. As per claim 72 Beckert disclosed wherein the local development network supports high speed wireless transfer of information among a remote information station and at least one of (i) vehicle systems and (ii) AMI-C devices (col. 7, lines 10-19).

11. As per claim 73,<sup>84</sup> Beckert disclosed wherein the gateway device selects a cost effective communication method for communications between vehicle systems on the OEM bus, AMI-C devices on the AMI-C bus, the external network, and the local development network (col. 5, lines 56-66).

12. As per claims 74,<sup>86</sup> Beckert disclosed wherein an internet coupling provides a low-cost communication method, and wherein a wider coverage communication selected from the group consisting of two-way paying and cellular telephone communication provides a higher-cost communication method, wherein selecting a cost-effective communication method comprises: selecting the low-cost communication method for low priority communications; and selecting the higher-cost communication method for high priority communications (col. 3, lines 43-56).

13. As per claim 75 Beckert disclosed wherein the low priority communication is a communication selected from the group consisting of uploading of video entertainment, uploading of audio entertainment, software upgrading, transfer of vehicle reliability records and transfer of vehicle performance histories (col. 4, lines 53-67).

14. As per claim 76 Beckert disclosed wherein the high priority communication is a communication relating to an emergency situation detected by on-board vehicle diagnostics (col. 4, lines 59-67).

15. As per claim 77 Beckert disclosed wherein the OED bus is connected to at least one peripheral electronic device, wherein the at least one peripheral electronic device includes at least one of climate control devices, position location devices, Global Positioning System devices, sensor devices, switch clusters, device subnet works, and wherein the AMI-C bus is connected to at least one peripheral AMI-C electronic device (col. 7, lines 10-19), wherein the at least one peripheral AMI-C electronic device includes at least one of pagers, video devices, audio devices, multimedia players, personal digital assistants, and wireless local area network ports (col. 7, lines 21-31).

16. As per claims 78,88 Beckert disclosed wherein hosting vehicle applications associated with the OEM vehicle systems and the AMI-C devices on the application processor comprises

hosting applications associated with at least one of passenger conveniences and vehicle operations (col. 4, lines 45-56).

17. As per claims 78,80 Beckert disclosed wherein the applications associated with the OEM vehicle systems and the AMI-C devices are upgradeable via input from the gateway device (col. 4, lines 45-56).

18. As per claim 79 Beckert disclosed further comprising supporting atomic transactions among vehicle systems on the OEM bus, AMI-C devices on the AMI-C bus, and the external network (col. 3, lines 42-57).

### ***Response to Arguments***

19. Applicant's arguments filed 04/13/2009 have been fully considered but they are not persuasive. Response to applicant's arguments is as follows.

A. Applicant argued that Beckert fails to disclose, "coupling an OEM bus, an AMI-C bus, and an external network via a gateway device".

As to applicant's argument Beckert disclosed, "Computer 22 has three primary modules: a faceplate module 60, a support module 62, and a computer module 64. The computer module 64 is operatively connected to the support module 62 via a multi-bit bus 66. In the preferred

implementation, the multi-bit bus is a PCI (Peripheral Component Interconnect) bus. The support module 62 and faceplate module 60 are interconnected via a high speed serial interface 68 which supports high speed, serial data communication. A preferred serial transmission scheme is described below in more detail with reference to FIG. 8 (col. 5, lines 17-27). One ordinary skill in the art knows that buses in a computer network also interpreted as drivers and interfaces where as gateway device is a computer server/router/switch.

B. Applicant argued that Beckert fails to disclose, "authenticating devices connected to the AMI-C bus".

As to applicant's argument Beckert disclosed, "The security system 146 is connected to actuators which lock/unlock doors and windows, and to an alarm which can be activated upon detection of unwanted tampering. An OBD (On Board Diagnostic) interpreter 128 is provided in the computer module to communicate with the OBD system built into the vehicle by the manufacturer. The OBD interpreter 116 interprets the status data received and provides performance related information from the vehicle's OBD system to the microprocessor 100. Also, commands can be provided to the interpreter which allows non-critical car systems to be controlled.

(21) A more detailed explanation of the three modules in the vehicle computer system is provided in co-pending U.S. patent application Ser. No. 08/564,586 entitled "Vehicle Computer System," which was filed on Nov. 29, 1995 in the names of Richard D. Beckert, Mark M.



Moeller, and William Wong. This application is assigned to Microsoft Corporation and is incorporated herein by reference.

(22) The logic unit 90 within the support module 62 is configured with its own multi-bit bus structure that is separate from the bus of the microprocessor 130 of the computer module 64. The logic unit 90 and microprocessor 130 are interfaced using a bus, such as PCI bus 66. By configuring the logic unit 90 with its own bus, the logic unit 90 is capable of better performing its tasks independent of intervention from the microprocessor 130. Moreover, the internal bus of the logic unit 90 facilitates data communication between the audio components and other serial devices while using minimal processing resources of the microprocessor 130.

(23) FIG. 4 shows a preferred implementation of an internal bus structure 140 of the logic unit 90 of the support module and the interface between the internal bus 140 and external devices. The internal multi-bit bus structure 140 includes an address bus 142, a data bus 144, and a control bus 146. In the illustrated implementation, the data bus 144 is a 32-bit bus and the address bus 142 is a sufficiently large to support in parallel at least 19 address bits, such as through a 32-bit bus. The busses are tri-state busses which are driven by one of several sources. An internal bus arbiter 148 determines which device is in control of the bus structure 140 (col. 7, lines 20-60)".

*Conclusion*

**20. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

21. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Adnan Mirza whose telephone number is (571)-272-3885.

22. The examiner can normally be reached on Monday to Friday during normal business hours. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **VIVEK SRIVASTAVA** can be reached on (571)-272-7304. The fax for this group is (703)-746-7239. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

23. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866)-217-9197 (toll-free).

/A. M./  
Examiner, Art Unit 2445

/VIVEK SRIVASTAVA/  
Supervisory Patent Examiner, Art Unit 2445